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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/182,831	10/29/98	GROENKE	1798.1050501

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EXAMINER
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ART UNIT	PAPER NUMBER
3737	3

DATE MAILED: 03/27/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/182,831

Applicant(s)

GROENKE et al

Examiner

CARL H. LAYNO

Group Art Unit

3737

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 10/29/98
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-38 is/are pending in the application.
- Of the above claim(s) 1-10 is/are withdrawn from consideration.
- ☒ Claim(s) 11-25 is/are allowed.
- ☒ Claim(s) 26-34 is/are rejected.
- ☒ Claim(s) 35-38 is/are objected to.
- ☒ Claim(s) 1-10 are subject to restriction or election requirement.

Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 10/29/98 is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to a force sensor, classified in class 73, subclass 12.01 and/or class 340, subclass 626.
 - II. Claims 11-38, drawn to an automated external defibrillator, classified in class 607, subclass 5+.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions of Groups I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the external defibrillator may function with any "force sensor", such as a pressure transducer having a different structure capable of performing the same sensing task as the force sensor specified in Group I.

The subcombination has separate utility such as a general purpose force sensor for use in other pressure or force sensing roles not limited to defibrillators (e.g. weight scales, pressure sensitive switches, etc.).

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with John F. Thuent on March 23, 2000 **a provisional election was made with traverse to prosecute the invention of elected Group II, claims 11-38.** Affirmation of this election must be made by applicant in replying to this Office action. **Claims 1-10 are withdrawn** from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Drawings

6. The drawings are objected to because of the following minor informalities:
-Fig.3, serial port "22" should be "42" to match the specification and Fig.1,

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-Fig.6, backing layer "78" should be "178" to match the specification (p.13, line 14). Note that element "78" is already designated as the "event storage memory" in Fig.3.

Correction is required.

7. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

8. The drawing labels "Figure" in Figures 1, 2, 4, and 6 should be replaced by the abbreviation "FIG." as per 37 CFR 1.84.u.1.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 26 and 29-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 is both indefinite and incomplete in that it is unclear from the claim language whether or not a device (i.e. a computer, a defibrillator, or any mechanical or electrical device) is being used to assist the user in performing any of the claimed steps.

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Claims 29 and 30 recite the term "the force sensor". There is insufficient antecedent basis for this limitation in the claim. To overcome this rejection, the Examiner suggests changing the dependency of these claims from claim 27 to claim 28 where this term is first defined.

Since claims 31-34 depend from rejected claim 30, they too are rejected.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by Morgan et al '265.

The Morgan et al '265 patent describes an external defibrillator (Fig.1) comprising all of applicant's claimed features (Figs.4a, 4b, and 5) including a display means 24 (Fig.1) for prompting the user to perform CPR. Applicant's attention is directed to Fig.3b.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al '265 in view of Barkalow et al '114.

Though the external defibrillator of Morgan et al '265 possesses all of the features described by the applicant in claim 27, it does not disclose the use of a force sensor in the manner claimed by the applicant.

The Barkalow et al '114 patent describes a compression device in combination with an external defibrillator (Fig.6) for providing a patient in need with both CPR and synchronized defibrillation shocks. The Barkalow et al '114 compression device (Fig.1) utilizes a pressure/force sensor **105** (Fig.6) applied to a patient's skin just above the sternum and is sensitive to the exterior force caused by the initiation of systole in the patient (col.9, lines 5-10).

Lacking any criticality, to have substituted the external defibrillator of Morgan et al '265 for that used by Barkalow et al '114 would have been both obvious and an arbitrary selection to one of ordinary skill, particularly in view of the statement that the Barkalow et al device was designed to be used with any kind of "standard defibrillator" available (col.7, lines 26-41).

Allowable Subject Matter

15. Claims 29-34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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16. Claims 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Claims 11-25 are allowed.

18. The following is a statement of reasons for the indication of allowable subject matter:

Independent claim 11 describes an AED having an inventive combination of features not found in any prior art reference(s) of record including a “force sensor”, an “AED control system” which generates a “signal” indicative of the frequency and magnitude of the force applied to the “force sensor”, and an “AED prompting means” for prompting the user of the device. Unable to locate any reference(s) which teach these features, the Examiner deems this claim and its depending claims to be allowable.

19. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

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Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Buckman, Jr. et al '391 patent is cited for its pertinent combination of a manual heart compression device (Fig.12) having a force sensor (not shown) and force warning indicator 72 in combination with an external defibrillator 192. Unlike applicant's device, the device of Buckman, Jr. et al is used subcutaneously directly in contact with the heart rather on the patient's skin.

The Schmidt et al '244 patent describes an interface pressure measurement device having a force sensor pad (Fig.3) constructed with two contact layers 27b and 27a which establish an electrical communications path when a force is applied to bring them together. Unlike applicant's sensor, that of Schmidt et al does not utilize an "extrudable, electrically conductive material".

The Eggert et al '292 patent is cited for its pertinent teachings of force sensing and comparison to effective compression forces during CPR (Fig.12). Unfortunately, this device is used with a mannikin during CPR test exercises only and is not capable of prompting the user during real life CPR and defibrillation situations.

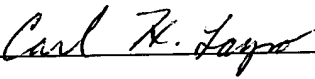
The Christ et al '449 patent is cited for its pertinent audible interactive CPR instructional capability (cols.19-21). It is not, however, used in combination with an AED as taught by the applicant.

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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl H. Layno whose telephone number is (703) 308-3694. The examiner can normally be reached on M-F from 8:30 AM to 5:00 PM. A voice mail message may be left if desired.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef, can be reached on (703) 308-3256. The current fax number for this Group is (703) 308-3588.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0858.



Carl H. Layno
Patent Examiner, AV 3737

CHL
3/23/00